

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Johannes Grosse et al.

Art Unit :

Examiner:

Serial No.: 10/540,818

: June 23, 2005

Filed Title

: METHODS AND AGENTS FOR DIAGNOSIS AND PREVENTION,

AMELIORATION OR TREATMENT OF GOBLET CELL-RELATED

**DISORDERS** 

## MAIL STOP AMENDMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

## INFORMATION DISCLOSURE STATEMENT

Applicants request consideration of the references listed on the attached PTO-1449 form. Under 37 C.F.R. § 1.98 (a)(2)(ii), only copies of foreign patent documents and/or non-patent literature are enclosed. Copies of any listed U.S. patents or U.S. patent application publications can be provided upon request.

This statement is being filed before the receipt of a first Office Action on the merits. Please apply any charges or credits to Deposit Account No. 06-1050, referencing Attorney Docket No. 14851-002US1.

Respectfully submitted,

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November 30, 2005

Substitute Form PTO-1449 Modified)

U.S. Department of Commerce Patent and Trademark Office

Attorney's Docket No. 14851-002US1

Application No. 10/540,818

**Information Disclosure Statement** by Applicant (Use several sheets if necessary)

Applicant Johannes Grosse et al.

Filing Date

Group Art Unit Unknown

1.98(b))

June 23, 2005

			U.S. Pater	nt Documents			
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AA	6,171,816	01/09/2001	Yu et al.			
	AB	6,245,320	06/12/2001	Kim			
	AC	6,312,922	11/06/2001	Edwards et al.			
	AD	6,783,961	08/31/2004	Edwards et al.			
	AE	US 2002/0111303 A1	08/15/2002	Boyd et al.			
	AF	US 2003/0023068 A1	01/30/2003	Yu et al.			

	Foreig	n Patent Docu	ıments or P	ublished Foreign P	atent A	Application	าร	
Examiner	Desig.	Document	Publication	Country or	Olasa	Cubalasa		lation
Initial	ID	Number	Date	Patent Office	Class	Subclass	Yes	No
	AG	EP 1 033 401	09/06/2000	European Patent Office				
	AH	WO 94/23032	10/13/1994	WIPO			,	
	AI	WO 98/07749	02/26/1998	WIPO				
	AJ	WO 99/40189	08/12/1999	WIPO				
	AK	WO 99/41282	08/19/1999	WIPO				
	AL	WO 99/53040	10/21/1999	WIPO				- "
	AM	WO 99/55858	11/04/1999	WIPO				
	AN	WO 00/53755	09/14/2000	WIPO				
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	AP	WO 01/96388	12/20/2001	WIPO				
	AQ	WO 01/96390	12/20/2001	WIPO				
	AR	WO 02/00939	01/03/2002	WIPO				
	AS	WO 02/05842	01/24/2002	WIPO				
	AT	WO 02/055065	07/18/2002	WIPO				
	AU	WO 03/075014	09/12/2003	WIPO				

	Other Documents (include Author, Title, Date, and Place of Publication)				
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Initial	ID	Document			

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Date Considered

EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 14851-002US1	Application No. 10/540,818	
1	losure Statement plicant	Applicant Johannes Grosse et al.		
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	Other D	ocuments (include Author, Title, Date, and Place of Publication)
Examiner Initial	Desig. ID	Document
	AV	Adam et al., "Comprehensive Proteomic Analysis of Breast Cancel Cell Membranes Reveals Unique Proteins with Potential Roles in Clinical Cancer," J. Biol. Chem. 278(8):6482-6489 (2003)
	AW	Ahlstedt et al., "Immune Regulation of Goblet Cell Development," Int. Arch. Allergy Appl. Immunol., 82:357-360 (1987)
	AX	Bassaganya-Riera et al., "Activation of PPAR $\gamma$ and $\delta$ by Conjugated Linoleic Acid Mediates Protection From Experimental Inflammatory Bowel Disease," <i>Gastroenterology</i> , 127:777-791 (2004)
	AY	Bhat, "The Ocular Lens Epithelium," Biosci. Rep., 21(4):537-563 (2001)
	AZ	Brittan et al., "Gastrointestinal stem cells," J. Pathol., 197:492-509 (2002)
	AAA	Corfield et al, "Mucins in the Gastrointestinal Tract in Health and Disease," Front. Biosci., 6:D1321-D1357 (2001)
	ABB	Daniels et al., "Corneal stem cells in review," Wound Repair Regen., 9:483-494 (2001)
	ACC	Dekker et al., "The MUC family: an obituary," Trends Biochem. Sci., 27(3):126-131 (2002)
	ADD	Deplancke et al., "Microbial modulation of innate defense: goblet cells and the intestinal mucus layer," Am. J. Clin. Nutr., 73:1131S-1141S (2001)
	AEE	Einerhand et al., "Role of mucins in inflammatory bowel disease: important lessons from experimental models," Eur. J. Gastroenterol. Hepatol., 14:1-8 (2002)
	AFF	Emura, "Stem cells of the respiratory tract," Paediatr. Respir. Rev., 3:36-40 (2002)
	AGG	Fahy, "Remodeling of the Airway Epithelium in Asthma," Am. J. Respir. Crit. Care Med., 164:S46-S51 (2001)
	АНН	Farrell et al., "The effects of keratinocyte growth factor in preclinical models of mucositis," Cell-Prolif., 35(Suppl. 1):78-85 (2002)
	AII	Fletcher et al., "hAG-2 and hAG-3, human homologues of genes involved in differentiation, are associated with oestrogen receptor-positive breast tumors and interact with metastasis gene C4.4a and dystroglycan," Br. J. Cancer, 88:579-585 (2003)
	AJJ	Forstner, "Intestinal Mucins in Health and Disease," Digestion, 17:234-263 (1978)
	AKK	Foster et al., "Prostatic stem cells," J. Pathol., 197:551-565 (2002)
	ALL	Grosse et al., "Deficient mucus production causes chronic enteritis in the "MONTEZUMA" mouse model for IBD," oral presentation, Human Genome Meeting, Berlin, Germany, April 4, 2004 – April 7, 2004
	AMM	Huber et al., "Comparison of Proteomic and Genomic Analyses of the Human Breast Cancer Cell Line T47D and the Antiestrogen-resistant Derivative T47D-r," Mol. Cell. Proteomics, 3:43-55 (2004)
	ANN	Jackson, "Airway goblet-cell mucus secretion," Trends Pharmacol. Sci., 22(1):39-45 (2001)
	A00	Jass et al., "Altered mucin expression in the gastrointestinal tract: a review," J. Cell. Mol. Med., 5(3):327-351 (2001)
	APP	Katz et al., "The zinc-finger transcription factor Klf4 is required for terminal differentiation of goblet cells in the colon," <i>Development</i> , 129:2619-2628 (2002)

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if rest communication to applicant.	of in conformance and not considered. Include copy of this form with
	Substitute Disclosure Form (PTO-1449)

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(37 CFR §1.98(b))		June 23, 2005	Unknown	

		ocuments (include Author, Title, Date, and Place of Publication)
Examiner Initial	Desig.	Document
miliai	AQQ	Knight et al., "Expression Profiling Reveals Novel Innate and Inflammatory Responses in the Jejunal Epithelial Compartment during Infection with <i>Trichinella spiralis</i> ," <i>Infect. Immun.</i> , 72(10):6076-6086 (2004)
	ARR	Laboisse et al., "Recent aspects of the regulation of intestinal mucus secretion," <i>Proc. Nutr. Soc.</i> , 55:259-264 (1996)
	ASS	Maestrelli et al., "Remodeling in Response to Infection and Injury: Airway Inflammation and Hypersecretion of Mucus in Smoking Subjects with Chronic Obstructive Pulmonary Disease," Am. J. Crit. Respir. Care Med., 164:S76-S80 (2001)
	ATT	Melton, "Does mucus hypersecretion matter in airway disease?," Lancet, 359:1924 (2002)
	AUU	Missiaglia et al., "Analysis of gene expression in cancer cell lines identifies candidate markers for pancreatic tumorigenesis and metastasis," <i>Int. J. Cancer</i> , 112:100-112 (2004)
	AVV	Nadel, "Role of epidermal growth factor receptor activation in regulating mucin," Respir. Res., 2:85 89 (2001)
	AWW	Otto, "Lung epithelial stem cells," J. Pathol., 197:527:535 (2002)
	AXX	Podolsky, "Mechanisms of regulatory peptide action in the gastrointestinal tract: trefoil peptides," J. Gastroenterol., 35(Suppl. XII):69-74 (2000)
	AYY	Pohler et al., "The Barrett's Antigen Anterior Gradient-2 Silences the p53 Transcriptional Response to DNA Damage," Mol. Cell. Proteomics, 3:534-547 (2004)
	AZZ	Puchelle et al., "Airway mucus in cystic fibrosis," Paediatr. Respir. Rev., 3:115-119 (2002)
	AAAA	Schindelmann et al., "Expression Profiling of Mammary Carcinoma Cell Lines: Correlation of in vitro Invasiveness with Expression of CD24," <i>Tumor Biol.</i> , 23:139-145 (2002)
	ABBB	Schreiber et al., "Influence of Mucolytic Therapy on Respiratory Mechanics in Patients with Chronic Obstructive Pulmonary Disease," Eur. J. Med. Res., 7:98-102 (2002)
-1	ACCC	Schweickert et al., "Pitx1 and Pitx2c Are Required for Ectopic Cement Gland Formation in Xenopus laevis," Genesis, 30:144-148 (2001)
	ADDD	Slomiany et al., "Disruption in gastric mucin synthesis by <i>Helicobacter pylori</i> lipopolysaccharide involves ERK and p38 mitogen-activated protein kinase participation," <i>Biochem. Biophys. Res. Commun.</i> , 294:220-224 (2002)
	AEEE	Sossey-Alaoui et al., "Molecular Characterization of a 7p15-21 Homozygous Deletion in a Wilms Tumor," Genes, Chromosomes & Cancer, 36:1-6 (2003)
	AFFF	Specian et al., "Functional biology of intestinal goblet cells," Am. J. Physiol., 260:C183-C193 (1991)
	AGGG	Stappenbeck et al., "Rac1 mutations produce aberrant epithelial differentiation in the developing and adult mouse small intestine," <i>Development</i> , 127:2629-2642 (2000)
	АННН	Tomonaga et al., "Identification of Altered Protein Expression and Post-Translational Modifications in Primary Colorectal Cancer by Using Agarose Two-Dimensional Gel Electrophoresis," <i>Clin. Cancer Res.</i> , 10:2007-2014 (2004)
	AIII	van den Brink et al., "Epithelial Cell Differentiation – a Mather of Choice," Science, 294:2115-2116 (2001)
	AJJJ	Velcich et al., "Colorectal Cancer in Mice Genetically Deficient in the Mucin Muc2," Science, 295:1726-1729 (2002)

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	AKKK	Verdugo, "Goblet cells secretion and mucogenesis," Annu. Rev. Physiol., 52:157-176 (1990)			
	ALLL	Verdugo, "Mucin Exocytosis," Am. Rev. Respir. Dis., 144:S33-S37 (1991)			
	AMMM	Voynow, "What does mucin have to do with lung disease?," Paediatr. Respir. Rev., 3:98-103 (2002)			
	ANNN	Watanabe, "Significance of Mucin on the Ocular Surface," Cornea, 21(Suppl. 1):S17-S22 (2002)			
	A000	Yang et al., "Requirement of <i>Math1</i> for Secretory Cell Lineage Commitment in the Mouse Intestine," <i>Science</i> , 294:2155-2158 (2001)			
	APPP	Zeitlmann et al., "Deficient mucus production causes chronic enteritis in the "MONTEZUMA" mouse model for IBD," poster presentation, 17 <sup>th</sup> Mouse Genome Conference 2003, Braunschweig, Germany, November 9, 2003 – November 12, 2003			
	AQQQ	Zeitlmann et al., "'MONTEZUMA' – a genetic IBD mouse model caused by mutation of a novel gene," oral presentation, 11 <sup>th</sup> United European Gastroenterology Week, Madrid, Spain, November 1, 2003 – November 5, 2003			
	ARRR	Zeitlmann et al., "'MONTEZUMA' – a genetic IBD mouse model caused by mutation of a novel gene," oral presentation, 17 <sup>th</sup> Mouse Genome Conference 2003, Braunschweig, Germany, November 9, 2003 – November 12, 2003			

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